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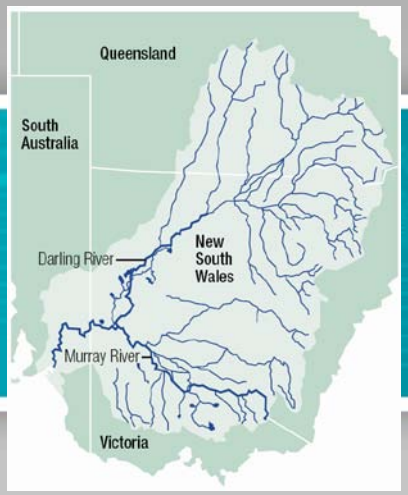
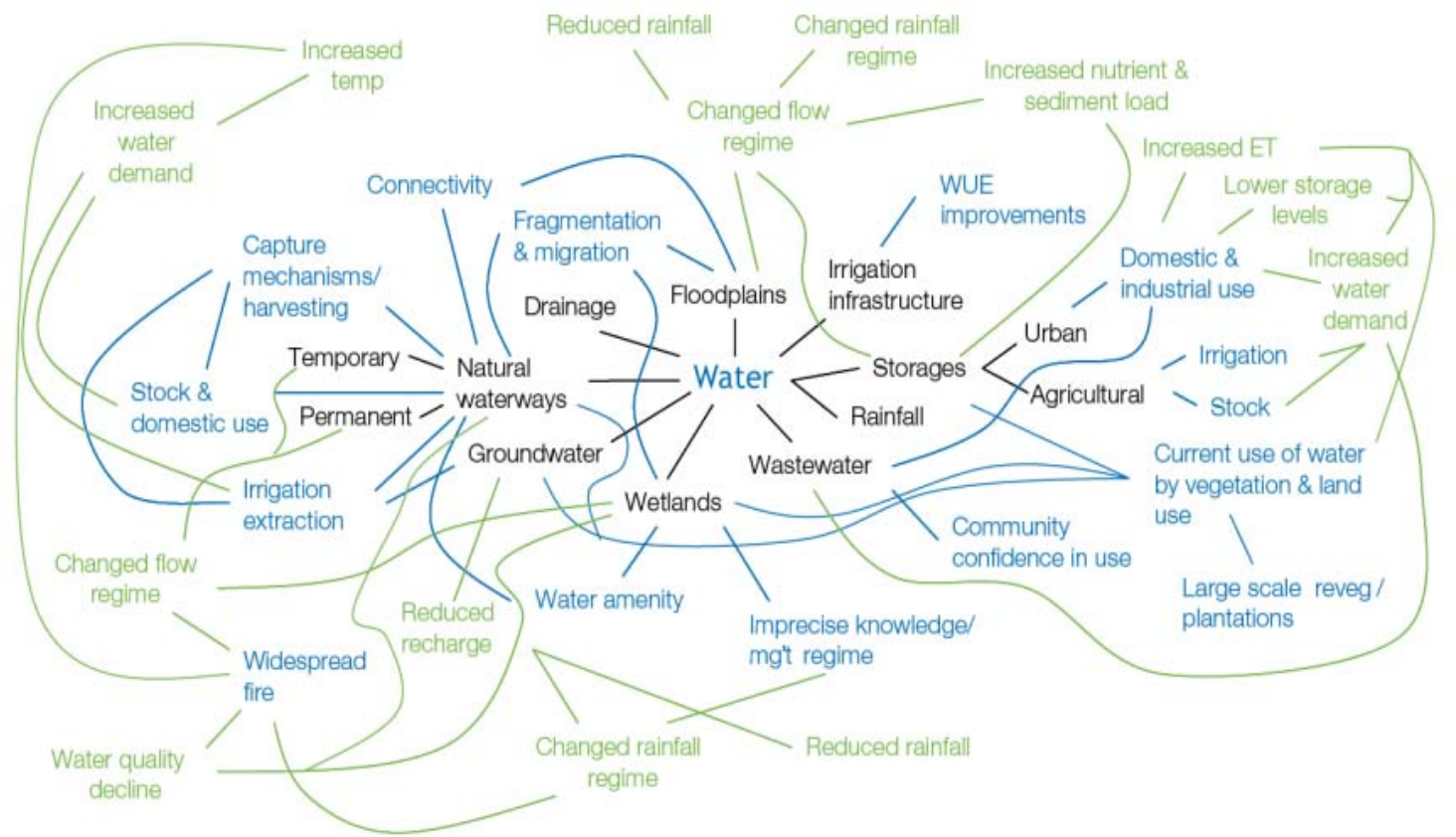


Water trade in the Murray-Darling Basin

Presenter: Christopher Biesaga

20 April 2009

Water is a Complex Business



- Water markets:
  - are one feature of water management
  - serves a purpose of redistributing water amongst uses

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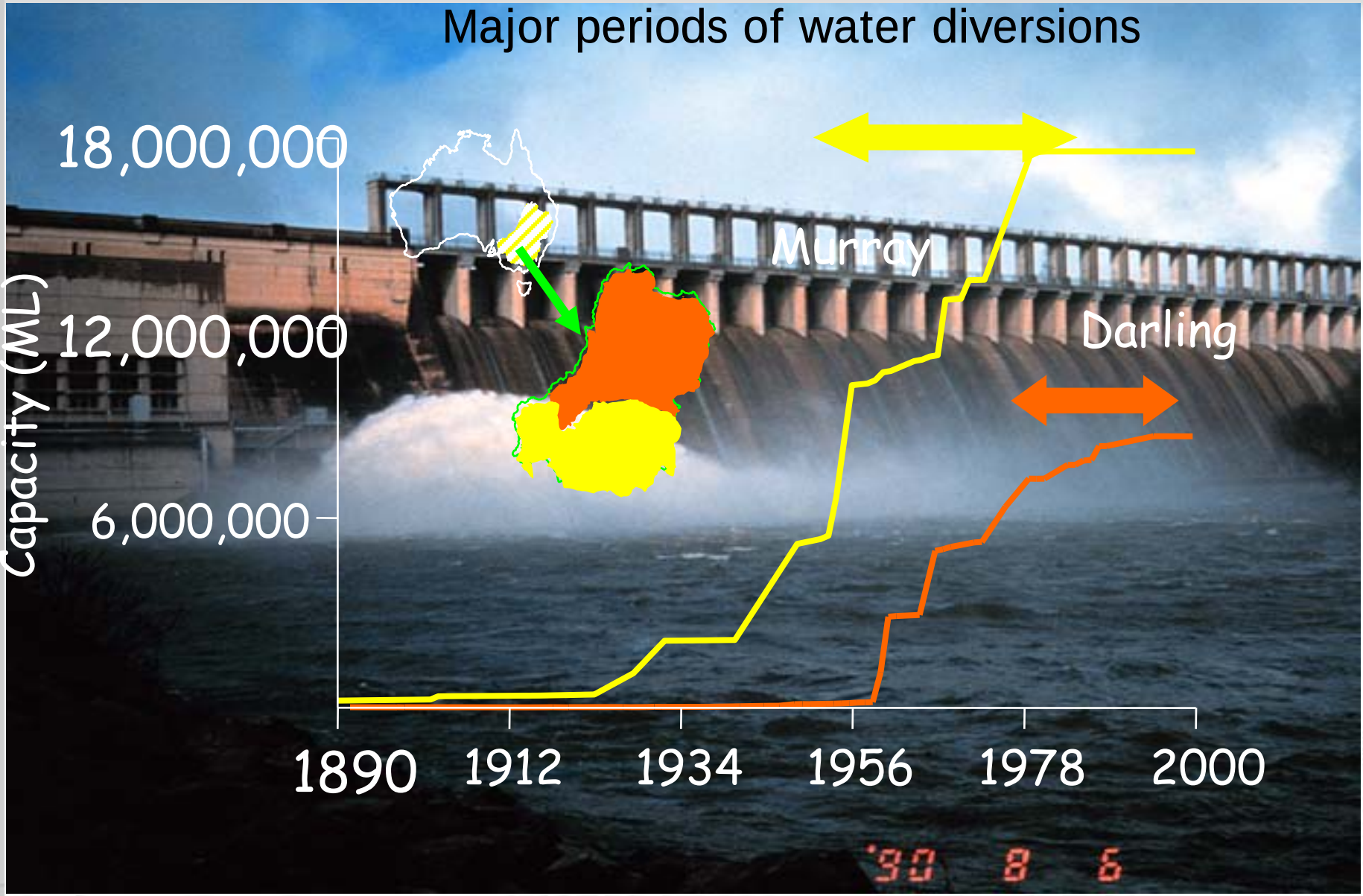
Australian Water Era

Water management in Australia driven by a lack of resources

- 1890's – 1980's Development era – 'drought, royal commission, new dam'
- 1994 COAG reforms – environmental flows, separate water and land 'titles'; corporatisation and cost recovery
- 1995 – MDB 'Cap' on development
- National Water Initiative 2004 – reaffirms markets' role in reallocating water (*reduce barriers*)
- *2007 Water Act* (Cth) – Basin Plan, which prescribes trading rules as a mandatory component

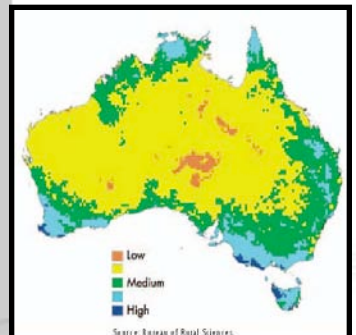
Government Funded Dams



Water Rights and History

- each State Government has slightly different water products
- varying reliability of water products between states
- water reliability suits specific crop types
- all state entitlements have the following attributes:

    - tenure (ownership)
    - volumetre definition (measure)
    - reliability (security of product)
    - transferability (able to sell)



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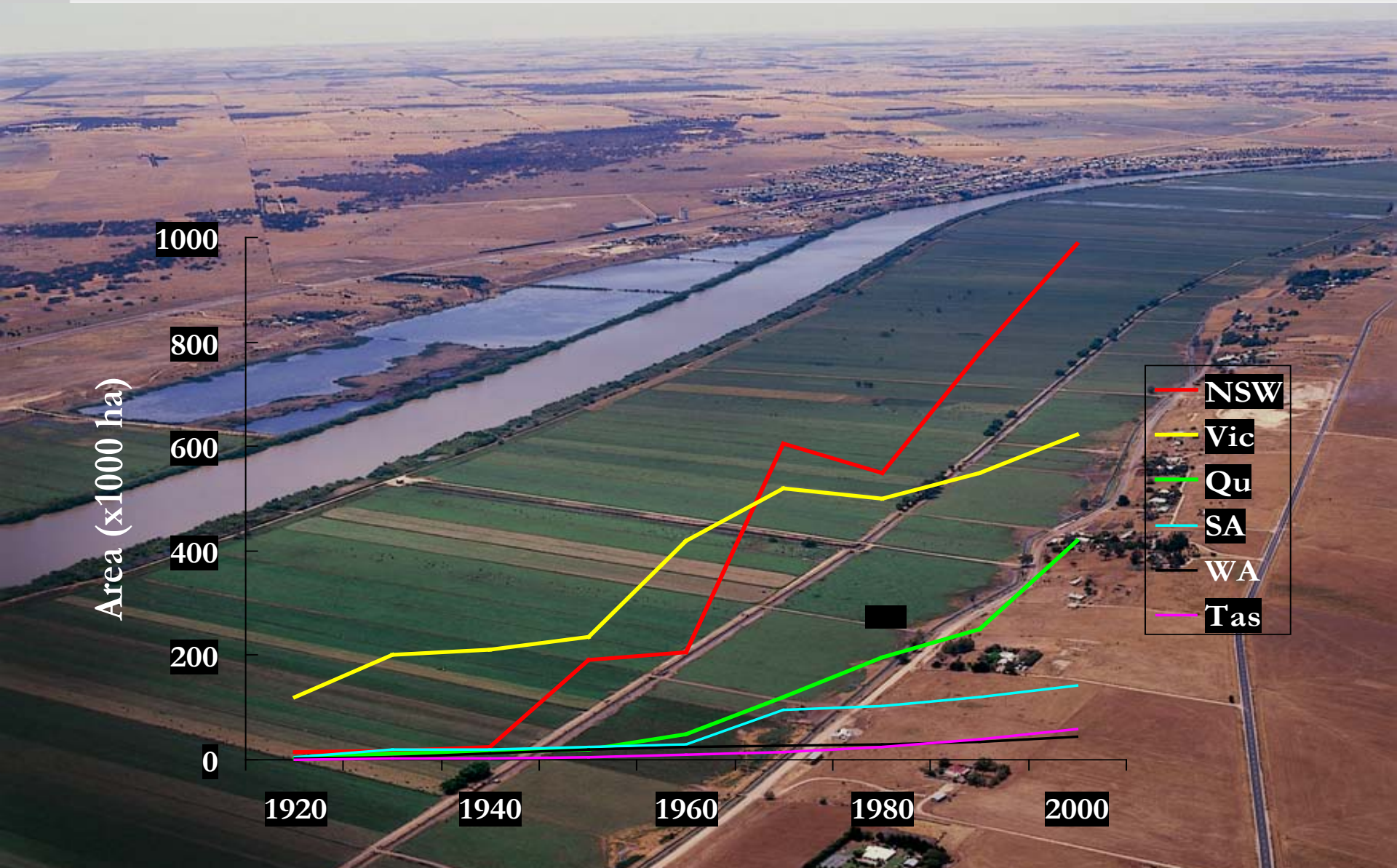
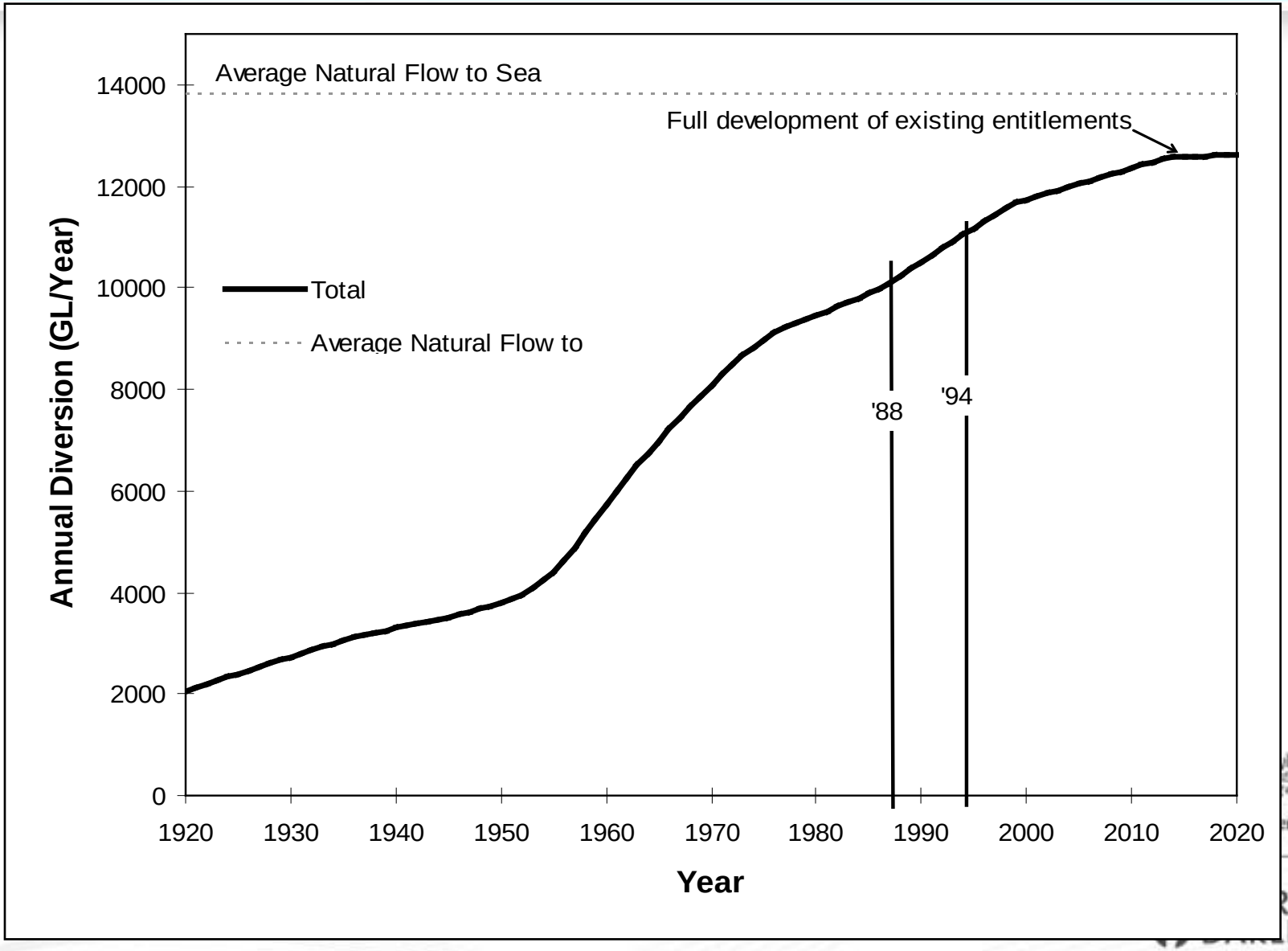
Irrigation in Australia



Cap and Trade Concept



Drivers of Water Trade

- no new water in Murray-Darling Basin
  - Cap on diversions within Basin
- flexibility for irrigators to own different water products (increase profitability)
- allows for reallocation of water resources (within a connected system)
- promote sustainable use
- positive environmental benefits
- fundamental to Living Murray Initiative

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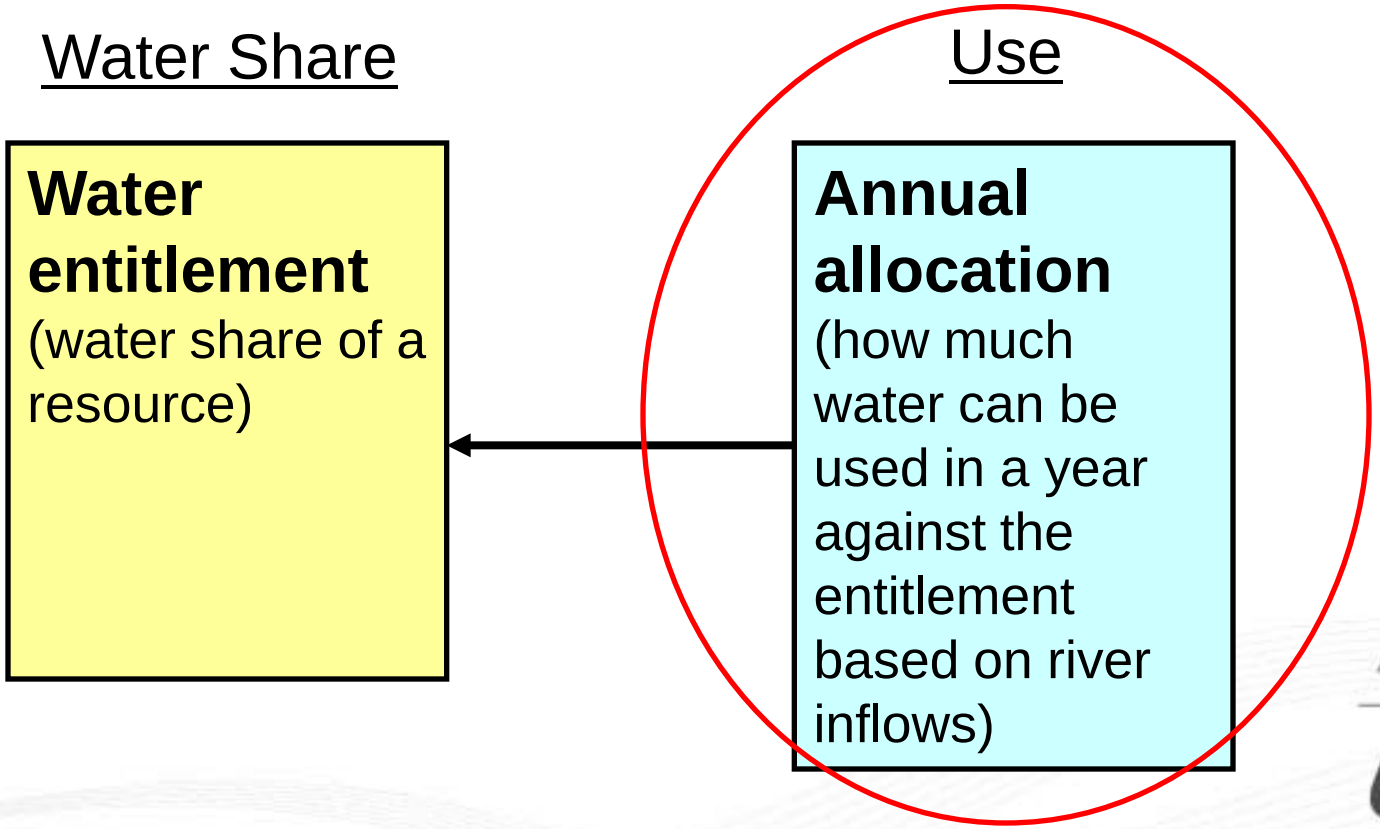
Entitlements and Allocations

- allocations made against water entitlements each year for use



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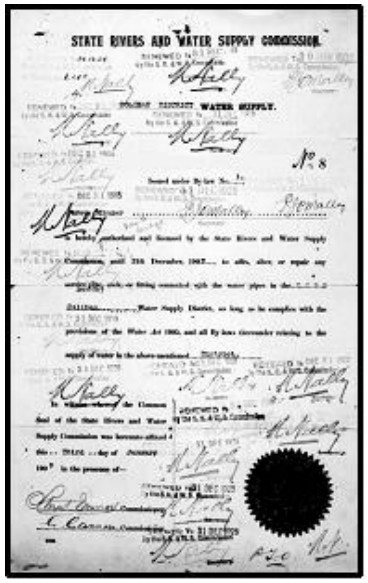
Water Trade



- Water trade can occur for both:
  - **entitlements** (sell and buy shares to water) – known as permanent trade;

and

  - **allocations** (sell and buy water against an entitlement) – known as temporary trade

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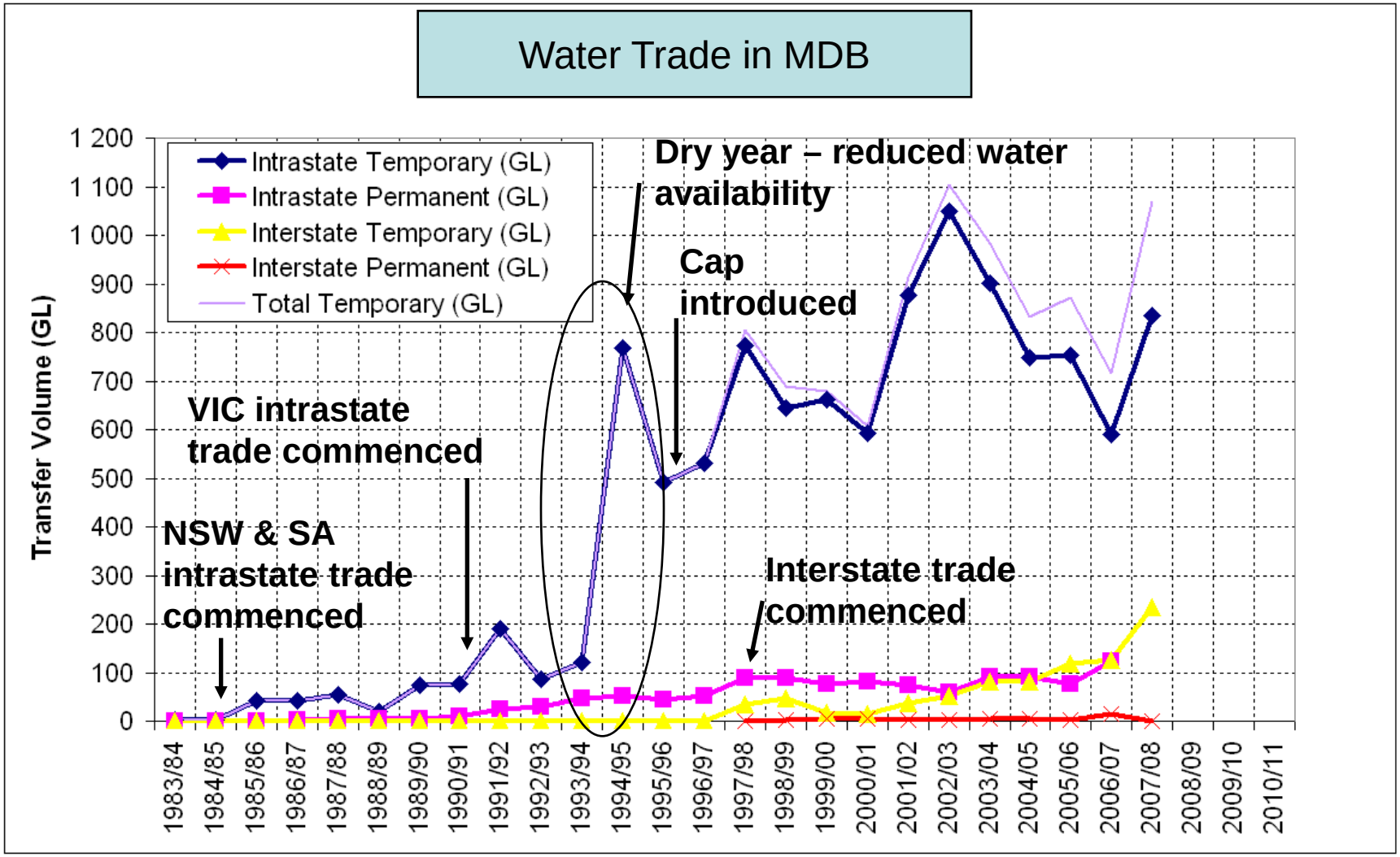
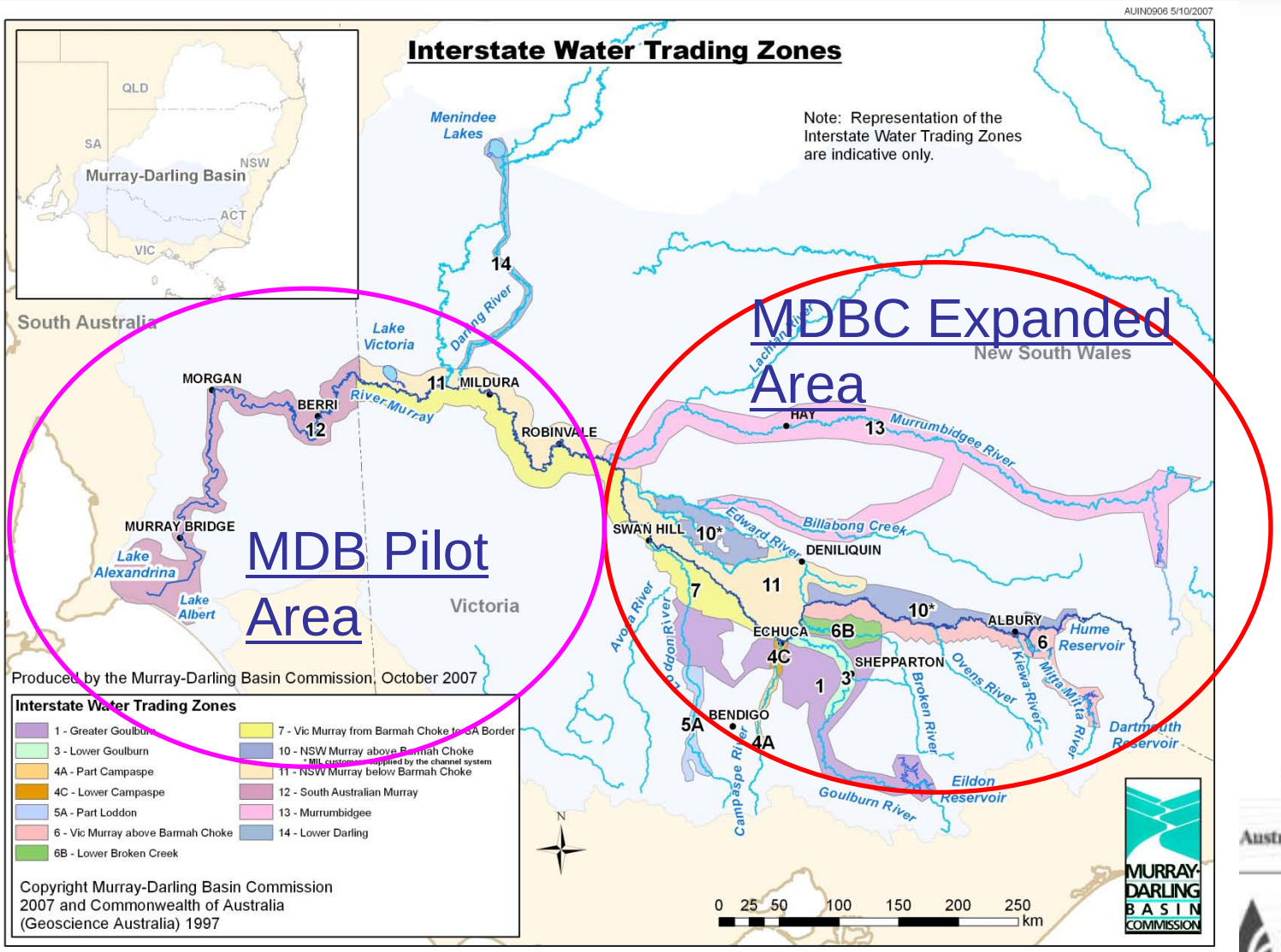
What Have We Learnt so Far?



Southern Basin



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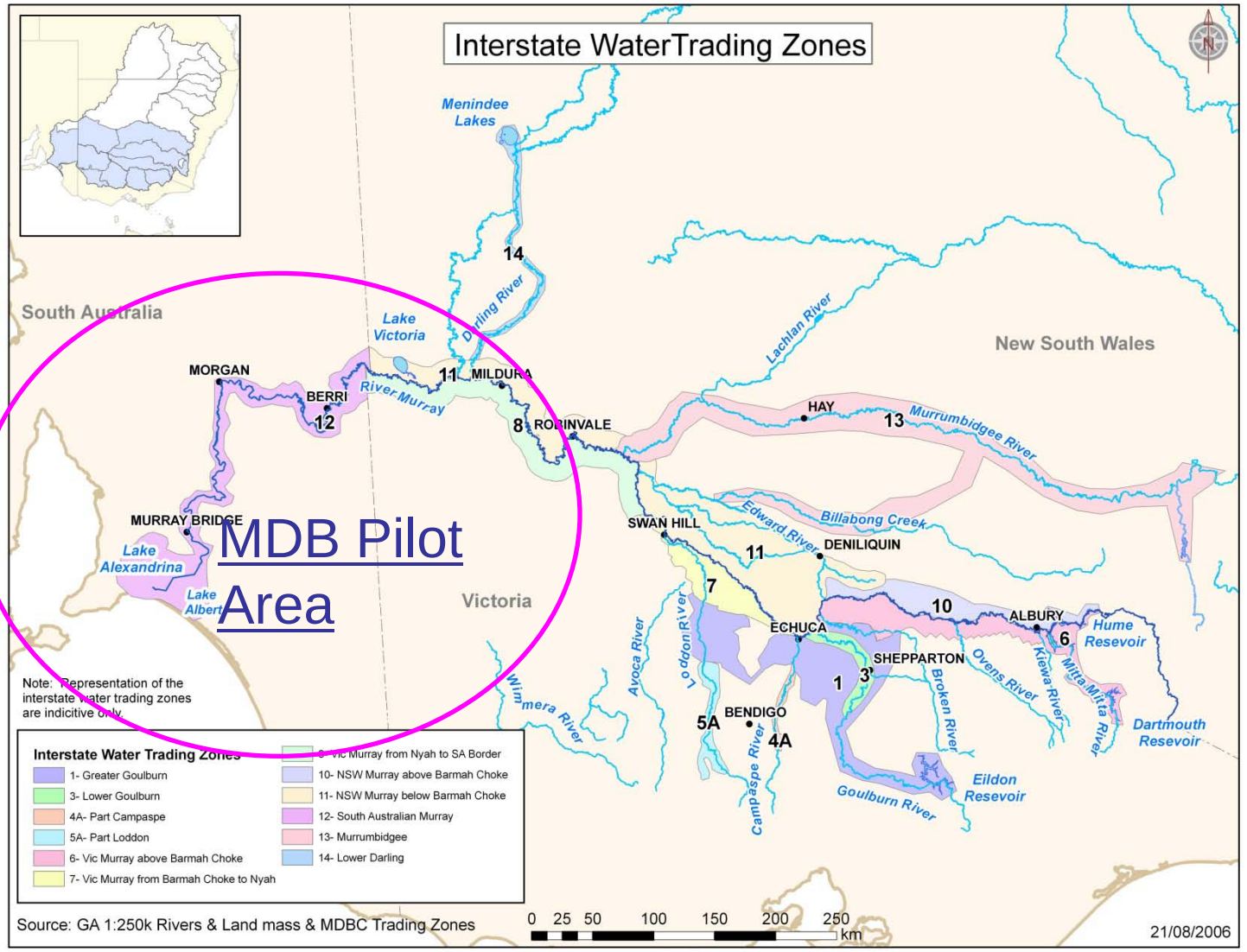
Pilot Interstate Water Trade Project



Northern Basin

- not as mature as southern trade system
- surface and groundwater
- different rules to southern system

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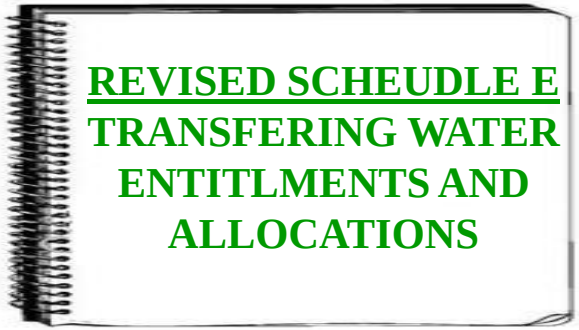
Expanding trade: key requirements

- water user acceptance
- revised legislative framework - Schedule E to enable
  - transfer mechanisms
  - trading rules
  - environmental and salinity clearances
  - managing ‘stranded’ irrigation assets
- robust accounting mechanisms



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Murray-Darling Basin Agreement

trade program defines the blueprint for water trade/market

- coordinate transfers between states/valleys using policy mechanisms
- set principles to be applied to such transfers

What does this mean?

- barrier free water trade in southern connected MDB
- minimisation of environmental and third party impacts
- capacity and knowledge building of water trading in Basin

Current tool for delivery

- Schedule E to Murray-Darling Basin Agreement and 8 supporting protocols

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Basin Plan

Subsection 22 (1) of the *Water Act* (2007)

- Basin Plan will define water trading rules which includes (similar to Schedule E);
  - ✓ governing rules
  - ✓ terms
  - ✓ processes
  - ✓ trading areas
  - ✓ reporting
- new consultation processes
- new stakeholders to engage (e.g ACCC)
- establishing a new identity
- huge opportunities for improving market rules and operation

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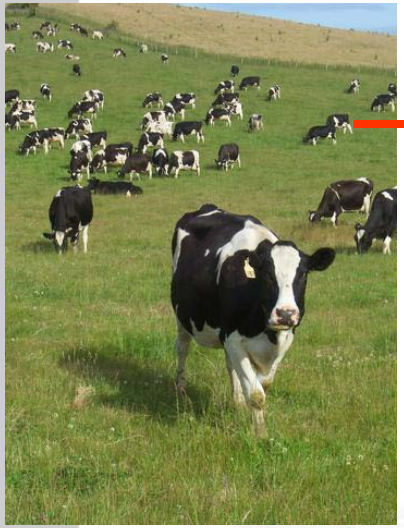
This is what may of happened without a water market since 2006

Water Trade Benefits

SOUTHCORP WINES



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Water Accounting in the Murray-Darling Basin

What is water accounting?

"This is so exciting!
I've never visited accounting before."

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What is water accounting?

- *Water accounting is the application of a consistent and structured approach to identifying, measuring, recording and reporting information about water*

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What does this really mean?

- Similar to financial accounting
- Non-physical water
- Litres
- Water year alignment with financial year
- External reporting with notes and disclosures

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Background to water accounting in Australia

- National Water Initiative ph.80
- National Water Accounting Development project
- Pilot projects
- Water Act
- National Water Account

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Water Accounting Vision in MDBA

- Based on water accounting principles.
- Standard practice.
- Includes environmental water activities and trading.
- Basin wide.
- Clear linkages with internal business cycles.
- Annual published accounts.
- Informs decision makers.
- Timing coincides with the National Water Account.
- Efficiency gains through reporting.
- Used and user friendly.

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MDBA Pilot Project

Map 1: Murray River Water Accounts Area

Produced by the Murray-Darling Basin Authority, Canberra 2009.
Sources: Topo 250K © Geoscience Australia, 2006. MARIN0809

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Example of a Water Accounting Report

Murray Darling Basin Authority
- River Murray Shared Water Resources
Operational Statement
for year ended 30 June 2008

	Note	2008 ML	2007 ML
Increasing Water Resource			
System inflows	3	3,727,470	2,130,210
Inter-State Sales	12	-	-
Total Increase in Water Resource		**3,727,470**	**2,130,210**
Decreasing Water Resource			
Water Allocations	4	1,060,240	2,138,370
Flows to South Australia	6	1,870,870	1,436,190
Evaporation and Losses	8	826,580	867,300
Interstate Trade	5	108,900	31,100
Modelled to Actual Variance	19	203,520	276,410
Variance Adjustment	19	(255,790)	(63,550)
Total Decrease in Water Resource		**3,814,320**	**4,685,820**
Change in Water Resource		**(86,850)**	**(2,555,610)**

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MURRAY–DARLING BASIN AUTHORITY

Example of a Water Accounting Report

Murray Darling Basin Authority
- River Murray Shared Water Resources
Balance Sheet
as at 30 June 2008

	Note	2008 ML	2007 ML
Water Resources			
Stock			
Instream Resource	9	16,060	74,490
Active Storage	9	1,776,520	1,044,940
Dead Storage	9	246,000	246,000
Total Stock		2,038,580	1,365,430
Rights to Water			
Rights to Water Menindee	9	370,260	93,730
Rights to Water Snowy			
Total Rights to Water		370,260	93,730
Total Water Resources		**2,408,840**	**1,459,160**
Commitments			
Payables (to SA?)	15	960,000	320,000
Provisions (to SA?)	16	170,000	50,000
Commitments in Menindee	9	370,260	93,730
Total Water Commitments		**1,500,260**	**463,730**
Net Water Resource		**908,580**	**995,430**
Equity			
Equity at beginning of year		995,430	3,551,040
Change in Net Water Assets		(86,850)	(2,555,610)
Closing Equity		908,580	995,430
Total Equity		**908,580**	**995,430**

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Example of a Water Accounting Report

Murray Darling Basin - River Murray Shared Water Resources
Statement of Physical Water Flows
for the year ended 30 June 2008

	Note	2008 ML	2007 ML
Physical Inflows			
System Inflows	3	3,727,470	2,130,210
Other			
Total Physical Inflows		3,727,470	2,130,210
Physical Outflows			
Water Allocated	4	(1,060,240)	(2,138,370)
Physical Flows to South Australia	7	(1,110,870)	(1,436,190)
Evaporation and Losses	8	(826,580)	(867,300)
Interstate Trade	5	(108,900)	(31,100)
Modelled to Actual Variance	19	(203,520)	(276,410)
Variance Adjustment	19	255,790	63,550
Total Physical Outflows		(3,054,320)	(4,685,820)
Net Flow		**673,150**	**(2,555,610)**
Add Opening Stock		**1,365,430**	**3,921,040**
Closing Stock		**2,038,580**	**1,365,430**
Represented by:			
Storages	9	2,022,520	1,290,940
Instream Resource	9	16,060	74,490
		2,038,580	**1,365,430**

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Water Accounting Vision in MDBA

For More Information Contact:

Website: www.mdba.gov.au

or email:

water.trade@mdba.gov.au

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